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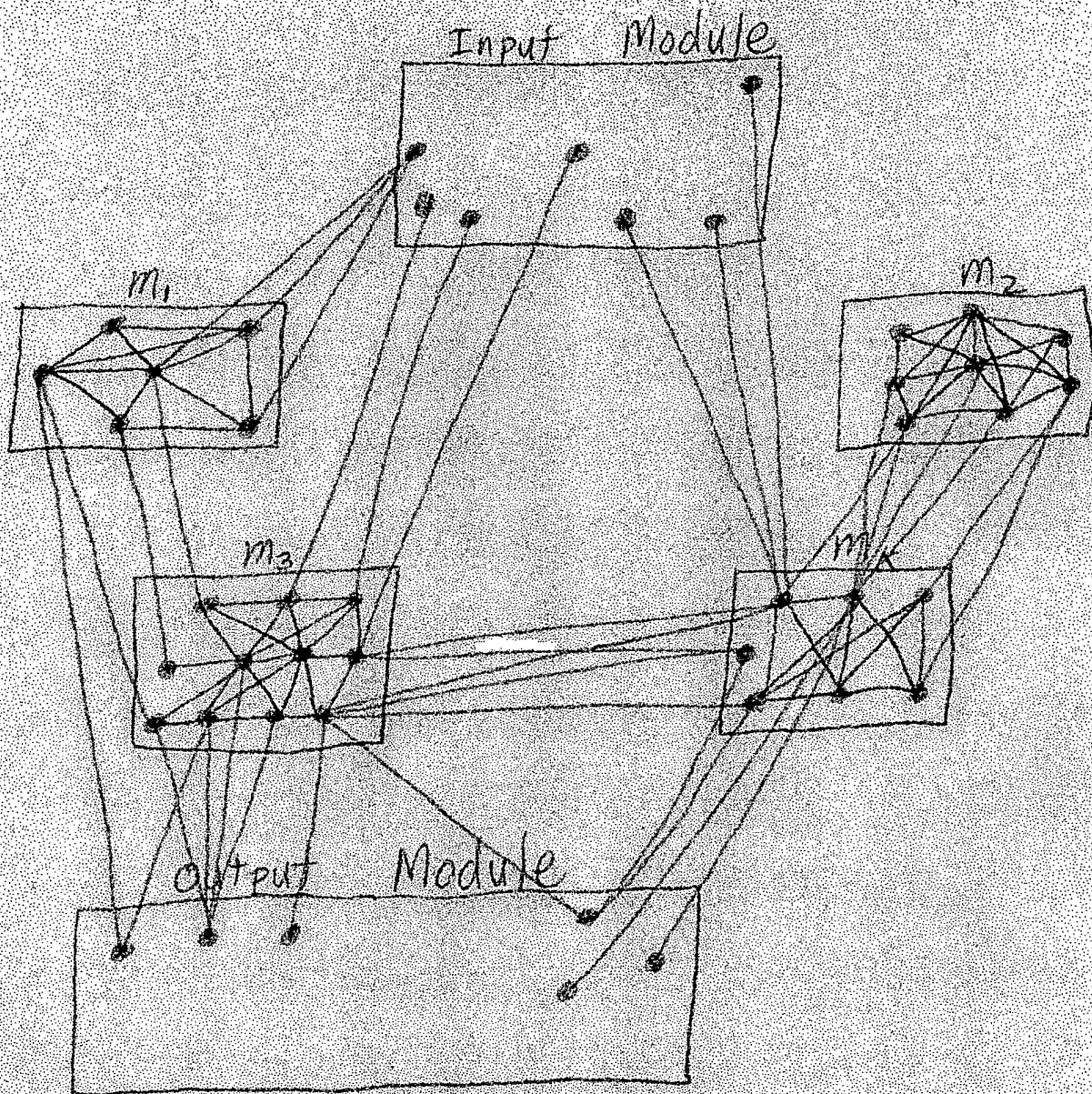
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## Effector Machine Structure used in Cyclic Graph Evolution

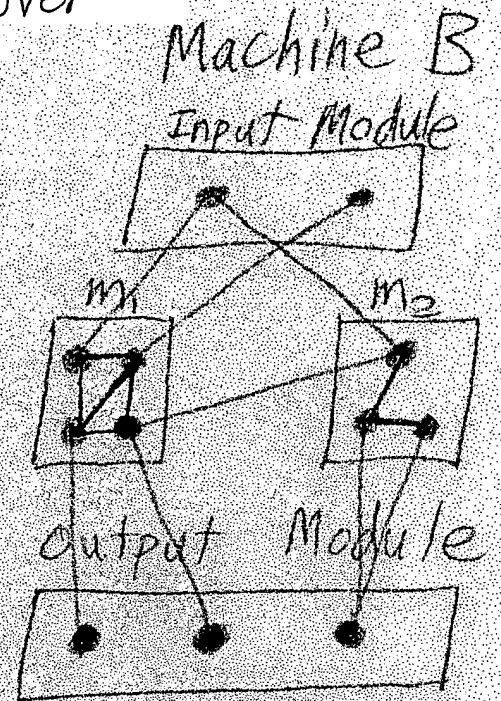
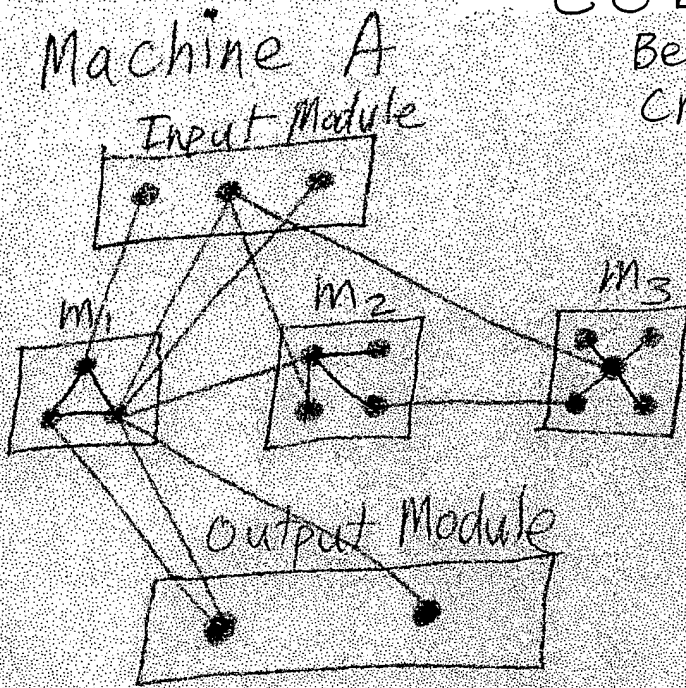


Internal modules are labeled:

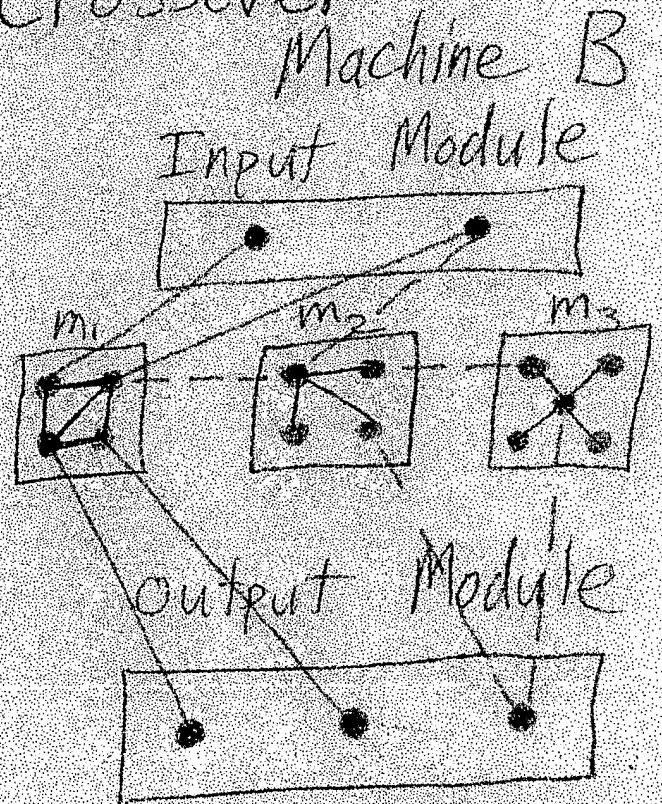
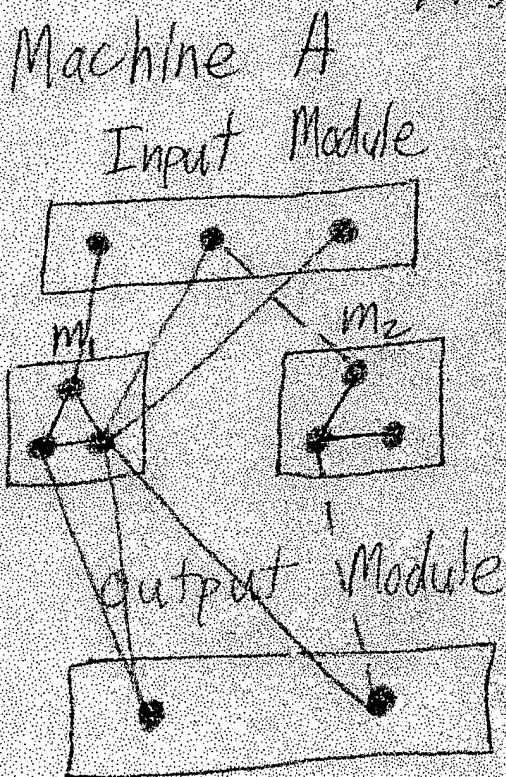
$m_1, m_2, m_3, \dots, m_k$

Internal connections lie completely with one rectangle, which represents one module. Non-zero external connections run from one module to another module. Effectors that have non-zero external connections to other modules are shown as large dots.

# CGE Crossover Before Crossover

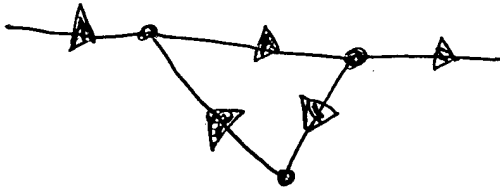


## After Crossover

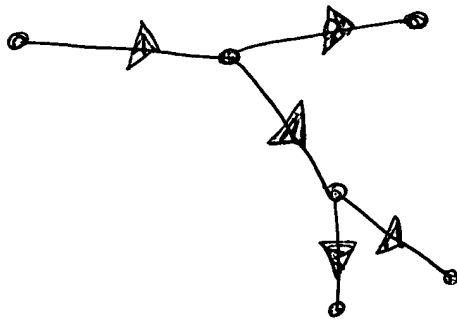


new external connection

# DIRECTED GRAPHS



Graph with  
cycle

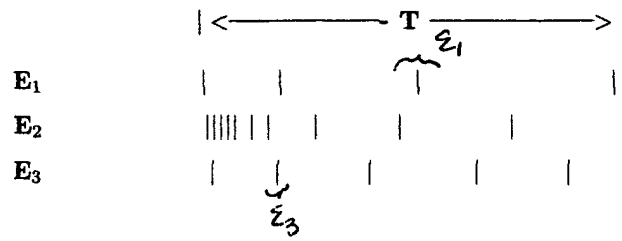


Graph with  
no cycles

# ERROR TOLERANCE IN EFFECTORS

EFFECTOR

FIRING TIMES



# Effector Circuit

